NEWS PHONE

NEWS WWW

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LOGINID:ssspta1202txn
 PASSWORD:
 TERMINAL (ENTER 1, 2, 3, OR ?):2
                       Welcome to STN International
                   Web Page URLs for STN Seminar Schedule - N. America
  NEWS
        1
                   "Ask CAS" for self-help around the clock
  NEWS
        2
                   CA/CAplus records now contain indexing from 1907 to the
  NEWS
           SEP 09
                   present
  NEWS
           DEC 08
                   INPADOC: Legal Status data reloaded
  NEWS
        5
           SEP 29
                   DISSABS now available on STN
           OCT 10
  NEWS
                   PCTFULL: Two new display fields added
           OCT 21
  NEWS
        7
                   BIOSIS file reloaded and enhanced
           OCT 28
  NEWS
       8
                   BIOSIS file segment of TOXCENTER reloaded and enhanced
           NOV 24
  NEWS
        9
                   MSDS-CCOHS file reloaded
           DEC 08
  NEWS 10
                   CABA reloaded with left truncation
           DEC 08
  NEWS 11
                   IMS file names changed
  NEWS 12
           DEC 09
                   Experimental property data collected by CAS now available
                   in REGISTRY
  NEWS 13
           DEC 09
                   STN Entry Date available for display in REGISTRY and CA/CAplus
  NEWS 14
           DEC 17
                   DGENE: Two new display fields added
  NEWS 15
           DEC 18
                   BIOTECHNO no longer updated
                   CROPU no longer updated; subscriber discount no longer
  NEWS 16
           DEC 19
                   available
           DEC 22
  NEWS 17
                   Additional INPI reactions and pre-1907 documents added to CAS
                   databases
           DEC 22
  NEWS 18
                   IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
  NEWS 19
           DEC 22
                   ABI-INFORM now available on STN
  NEWS 20
           JAN 27
                   Source of Registration (SR) information in REGISTRY updated
                   and searchable
  NEWS 21
           JAN 27
                   A new search aid, the Company Name Thesaurus, available in
                   CA/CAplus
  NEWS 22
           FEB 05
                   German (DE) application and patent publication number format
                   changes
           MAR 03
                   MEDLINE and LMEDLINE reloaded
  NEWS 23
  NEWS 24
           MAR 03
                   MEDLINE file segment of TOXCENTER reloaded
  NEWS 25
           MAR 03
                   FRANCEPAT now available on STN
  NEWS EXPRESS
                MARCH 5 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
                MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
                AND CURRENT DISCOVER FILE IS DATED 3 MARCH 2004
 NEWS HOURS
                STN Operating Hours Plus Help Desk Availability
 NEWS INTER
                General Internet Information
 NEWS LOGIN
                Welcome Banner and News Items
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Direct Dial and Telecommunication Network Access to STN

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FILE 'HOME' ENTERED AT 10:23:41 ON 11 MAR 2004

=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 10:23:49 ON 11 MAR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 10 MAR 2004 HIGHEST RN 661450-61-9 DICTIONARY FILE UPDATES: 10 MAR 2004 HIGHEST RN 661450-61-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=>

Uploading C:\STNEXP4\QUERIES\09943037.str

chain nodes :

7 14 15 16 18 19

ring nodes :

1 2 3 4 5 6 8 9 10 11 12 13

chain bonds :

5-7 6-15 7-8 7-14 10-16 16-18 18-19

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-13 9-10 10-11 11-12 12-13

exact/norm bonds :

6-15 7-14 10-16 16-18 18-19

exact bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 7-8

normalized bonds :

8-9 8-13 9-10 10-11 11-12 12-13

isolated ring systems :

containing 1 : 8 :

G1:0,S,N

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:Atom 9:Atom 10:Atom 11:Atom

12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 18:CLASS 19:Atom

Generic attributes :

18:

Number of Carbon Atoms : less than 7

19:

Number of Carbon Atoms : less than 7 Type of Ring System : Monocyclic

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STF

G1 0, S, N

Structure attributes must be viewed using STN Express query preparation.

=> s l1 ful

FULL SEARCH INITIATED 10:24:10 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 785 TO ITERATE

100.0% PROCESSED 785 ITERATIONS 90 ANSWERS

SEARCH TIME: 00.00.01

L2 90 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 155.42 155.63

FILE 'CAPLUS' ENTERED AT 10:24:16 ON 11 MAR 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 11 Mar 2004 VOL 140 ISS 11 FILE LAST UPDATED: 10 Mar 2004 (20040310/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 12

L3 7 L2

=> d 13 1- ibib abs hitstr
YOU HAVE REQUESTED DATA FROM 7 ANSWERS - CONTINUE? Y/(N):y

L3 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:818383 CAPLUS

DOCUMENT NUMBER:

139:323337

TITLE:

Preparation of 2-(3-carbonylbenzoyl) - and

2-(3-iminobenzoyl)cyclohexane-1,3-diones as herbicides INVENTOR(S): Seitz, Thomas; Van Almsick, Andreas; Willms, Lothar;

Schmitt, Monika H.; Auler, Thomas; Bieringer, Hermann;

Menne, Hubert

PATENT ASSIGNEE(S):

Bayer CropScience GmbH, Germany

SOURCE:

PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

```
PATENT NO.
                    KIND DATE
                                           APPLICATION NO. DATE
                            _____
     -----
                                           -----
                                                             _____
                      A1 20031016
                                          WO 2003-EP3250
     WO 2003084912
                                                            20030328
         W: AE, AG, AL, AM, AU, AZ, BA, BB, BR, BY, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, GD, GE, HR, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NI, NO, NZ, OM, PH, PL,
         NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
             GW, ML, MR, NE, SN, TD, TG
                                            DE 2002-10215723 20020410
     DE 10215723
                      A1 20031030
PRIORITY APPLN. INFO.:
                                         DE 2002-10215723 A 20020410
OTHER SOURCE(S):
                        MARPAT 139:323337
GI
```

Title compds. [I; X1 = O, SOn, NH, NR6; X2 = (branched) (substituted) AB alkylene, alkenylene, alkynylene; X3 = O, S, NOR7; R1-R3 = H, mercapto, NO2, halo, cyano, thiocyanato, (substituted) alkyl, cycloalkyl, etc.; R2, R7 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, etc.; R4 = OR8, (halo) alkylthio, (halo) alkenylthio, (halo) alkynylthio, (halo)alkylsulfonyl, etc.; R5 = H, (substituted) alkyl, cycloalkyl, tetrahydropyran-3-yl, etc.; R8 = H, (halo)alkyl, alkoxyalkyl, CHO, alkylcarbonyl, etc.; Y = O, S, NH, N-alkyl, CHR5, C(R5)2; Z = bond, O, S, SO, SO2, NH, N-alkyl, CHR9, C(R9)2; R9 = H, halo, cyano, (halo) alkyl; v =0-3; w = 0-4; n = 0-2], were prepared Thus, $(3-\infty-1-cyclohexenyl)$ [2-chloro-3-(methylcarbonylmethoxy)-4-ethylsulfonyl]benzoate (preparation given) in MeCN followed by stirring with Me2C(OH)CN and ET3N for 3 h at room temperature to give 31% [2-chloro-3-(methylcarbonylmethoxy)-4ethylsulfonylbenzoyl]cyclohexane-1,3-diones. The latter at 320 g/ha post-emergent gave 90-100% control of Chenopodium album, Echinochloa crus-galli, and Veronica persica. Several I at 80 and 320 g/ha gave 0% damage of wheat, rice, and corn.

Ι

IT 612846-15-8P 612846-24-9P 612846-25-0P 612846-26-1P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of (carbonylbenzoyl) - and (iminobenzoyl)cyclohexanediones as herbicides)

RN 612846-15-8 CAPLUS

CN

2-Cyclohexen-1-one, 2-[2-chloro-3-(2-cyclopropyl-2-oxoethoxy)-4-(methylsulfonyl)benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{O} \\ & \text{O} & \text{O} \\ & \text{C-} & \text{CH}_2 - \text{O} \\ & \text{C1} & \text{HO} \\ \end{array}$$

RN 612846-24-9 CAPLUS

CN 2-Cyclohexen-1-one, 2-[2,4-dichloro-3-(2-cyclopropyl-2-oxoethoxy)benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 612846-25-0 CAPLUS

CN 2-Cyclohexen-1-one, 2-[2,4-dibromo-3-(2-cyclopropyl-2-oxoethoxy)benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 612846-26-1 CAPLUS

CN 2-Cyclohexen-1-one, 2-[2-chloro-3-(2-cyclopropyl-2-oxoethoxy)-4-(ethylsulfonyl)benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2003:633677 CAPLUS

DOCUMENT NUMBER:

139:180066

TITLE:

Preparation of novel tetrazole derivatives as

herbicides

INVENTOR (S):

nerbicides Yanagi, Akihiko; Narabu, Shinichi; Yamaguchi,

Yoshihiro; Goto, Toshio; Shirakura, Shinichi; Ueno,

Chieko; Nakamura, Shin

PATENT ASSIGNEE(S):

Bayer CropScience AG, Germany

SOURCE:

PCT Int. Appl., 193 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.			KIND DATE				A)	PPLI	CATI	ои ис	o.	DATE		Λ,			
WO 2003066607			A1 200308:			0814	WO 2003-EP772						2003	0127	•		
W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,	
	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KΡ,	KR,	ΚZ,	LC,	LK,	LR,	

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2003238540 A2 20030827 JP 2002-32551 20020208
PRIORITY APPLN. INFO:: JP 2002-32551 A 20020208
OTHER SOURCE(S): MARPAT 139:180066

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

The title compds. [I; R1 = halo, alkyl, haloalkyl, etc.; m = 0-3; n = 0-1; A = alkylene; T = II, III (wherein R2 = H, alkyl, cycloalkyl, etc.); Q = IV-VI, CH(CN)COR11 (R3 = OH, halo, alkylcarbonyloxy, etc.; R4-R9 = H, alkyl; R4 may, together with R9, form an ethylene chain; R10 = alkyl; R11 = alkyl, cycloalkyl)], useful in agriculture, were prepared Thus, treating 3-oxo-1-cyclohexenyl 2,4-dichloro-3-[2-(1H-tetrazol-1-yl)ethoxy]benzoate with Et3N and Me2C(OH)CN in MeCN afforded VII which showed a herbicidal activity of 90% against Echinochloa crusgalli, Setaria viridis, Amaranthus retroflexus and Polygonum at 2.0 kg/ha.

IT 579452-60-1P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of novel tetrazole derivs. as herbicides)

RN 579452-60-1 CAPLUS

CN 2-Cyclohexen-1-one, 3-chloro-2-[2,4-dichloro-3-[2-(1H-tetrazol-1-yl)ethoxy]benzoyl]- (9CI) (CA INDEX NAME)

$$N \longrightarrow CH_2 - CH_2 - O \longrightarrow C1$$

$$C1 \longrightarrow C$$

$$C1 \longrightarrow C$$

$$C1 \longrightarrow C$$

$$C1 \longrightarrow C$$

IT 579452-58-7P 579453-00-2P 579453-24-0P 579453-26-2P 579453-76-2P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel tetrazole derivs. as herbicides)

RN 579452-58-7 CAPLUS

CN 2-Cyclohexen-1-one, 2-[2,4-dichloro-3-[2-(1H-tetrazol-1-yl)ethoxy]benzoyl]-3-(phenylthio)- (9CI) (CA INDEX NAME)

RN 579453-00-2 CAPLUS

CN 2-Cyclohexen-1-one, 2-[4-bromo-2-methyl-3-[2-(1H-tetrazol-1-yl)ethoxy]benzoyl]-3-(phenylthio)- (9CI) (CA INDEX NAME)

RN 579453-24-0 CAPLUS

CN 2-Cyclohexen-1-one, 2-[2,4-dichloro-3-[2-(2H-tetrazol-2-yl)ethoxy]benzoyl]-3-(phenylthio)- (9CI) (CA INDEX NAME)

$$N - CH_2 - CH_2 - O$$

RN 579453-26-2 CAPLUS

CN 2-Cyclohexen-1-one, 3-chloro-2-[2,4-dichloro-3-[2-(2H-tetrazol-2-yl)ethoxy]benzoyl]- (9CI) (CA INDEX NAME)

$$N - CH_2 - CH_2 - O$$

$$C1$$

$$C1$$

$$C1$$

$$C1$$

$$C1$$

RN 579453-76-2 CAPLUS

CN 2-Cyclohexen-1-one, 2-[4-bromo-2-methyl-3-[2-(2H-tetrazol-2-yl)ethoxy]benzoyl]-3-(phenylthio)- (9CI) (CA INDEX NAME)

$$N - CH_2 - CH_2 - O$$
 $N - CH_2 - CH_2 - O$
 $N - CH_2 - CH_2 - O$

REFERENCE COUNT:

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:221655 CAPLUS

DOCUMENT NUMBER: 138:237899

TITLE: Preparation of (3-aminocarbonylbenzoyl)cyclohexanedion

es as herbicides

INVENTOR(S): Seitz, Thomas; Van Almsick, Andreas; Willms, Lothar;

Auler, Thomas; Bieringer, Hermann; Menne, Hubert

09/ 943,037

PATENT ASSIGNEE(S): Bayer CropScience GmbH, Germany

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

IT

Patent German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PAT	KIND DATE					A.	PPLI	CATI	ои ис	ο.	DATE							
						2002			- T-7/			 c	20020004					
WO	2003	0228.	ΙU	A1 20030320						0 20	UZ-E.	270/	0	2002	0304			
	W:	ΑE,	AG,	AL,	AM,	ΑU,	ΑZ,	ΒA,	BB,	BR,	BY,	ΒZ,	CA,	CN,	CO,	CR,	CU,	
		DM,	DΖ,	EC,	GD,	GΕ,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KG,	KΡ,	KR,	ΚZ,	
		LC,	LK,	LR,	LT,	LV,	MA,	MD,	MG,	MK,	MN,	MX,	NO,	ΝZ,	OM,	PH,	PL,	
		RO,	RU,	SG,	SI,	ТJ,	TM,	TN,	TT,	UA,	US,	UΖ,	VC,	VN,	YU,	ZA,	AM,	
		ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM									
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,	ZW,	ΑT,	ΒE,	BG,	
		CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	
		PT,	SE,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	
		ΝE,	SN,	TD,	TG													
DE	1014	4529		A:	1 .	2003	0327		D)	E 20	01-1	0144!	529	2001	0911			
US	2003	19102	27	A:	1 .	2003	1009		U	S 20	02-2	3815	5	2002	0910			
PRIORITY	APP	LN.	INFO	.:]	DE 2	001-	1014	4529	Α	2001	0911			
OTHER SOURCE(S): MARPAT 138:237899																		

502149-33-9P 502149-34-0P 502149-70-4P

Title compds. [I; X1 = O, S(O)nNH, NR4; X2 = (substituted) alkylene, AB alkenylene, alkynylene; X3 = O, S; R1-R3 = H, SH, NO2, halo, cyano, thiocyanato, alkylcarbonyloxy, etc.; R4, R5 = H, (cyclo)alkyl, (cyclo) alkenyl, (cyclo) alkynyl, alkylcycloalkyl, etc.; NR4R5 = 5-6 membered (saturated) (Ph-benzocondensed) (substituted) heterocyclyl; R6 = OR8, (halo)alkylthio, (halo)alkenylthio, (halo)alkynylthio, etc.; R7 = H, tetrahydro(thio)pyran-3-yl, tetrahydropyran-4-yl, alkyl, cycloalkyl, etc.; Y = O, S, NH, N-alkyl, CHR7, CR72; Z = O, S, SO, SO2, NH, N-alkyl, CHR9, CR92; R8 = H, (halo)alkyl, alkoxyalkyl, CHO, etc.; R9 = H, halo, cyano, NO2, (halo)alkyl, etc.; n = 0-2; v = 0-3; w = 0-4], were prepared Thus, 2-chloro-3-(N,N-diethylaminocarbonylmethoxy)-4-ethylsulfonylbenzoic acid 3-oxo-1-cyclohexenyl ester (preparation given) in MeCN was dropwise treated with Me2C(OH)CN and Et3N followed by stirring for 2 h at room temperature and stirring with KCN for 10 h at room temperature to give 40% 2-[2-chloro-3-(N,Ndiethylaminocarbonylmethoxy) -4-ethylsulfonylbenzoyl]cyclohexane-1,3-dione. I (R1 = 2-C1; R2 = 4-C1; R3 = H; Y, Z = CH2; V = 1; X3 = 0; R6 = OH; X1X2= OCH2; NR4R5 = NEt2) at 90 g a.i./ha showed 90-95% postemergent control of Cyperus serotinus, Monochoria vaginalis, Sagittaria pygmaea and 0% damage of Oryza sativa.

Ι

502149-71-5P 502149-72-6P 502149-73-7P
502149-74-8P 502149-75-9P
RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN
(Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
(Uses)

(preparation of (aminocarbonylbenzoyl)cyclohexanediones as herbicides) 502149-33-9 CAPLUS

RN Pyrrolidine, 1-[[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-CN 6-(methylsulfonyl)phenoxy]acetyl]- (9CI) (CA INDEX NAME)

502149-34-0 CAPLUS RN

Piperidine, 1-[[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-6-CN(methylsulfonyl)phenoxy]acetyl] - (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
OH & O & C1 & O \\
\hline
C & O & CH_2 - C - N
\end{array}$$

$$\begin{array}{c|c}
O & O & O \\
S - Me & O \\
O & O & O
\end{array}$$

RN

502149-70-4 CAPLUS
Pyrrolidine, 1-[[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-CNyl)carbonyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)

RN 502149-71-5 CAPLUS

CN Pyrrolidine, 1-[[2,6-dibromo-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)

RN 502149-72-6 CAPLUS

CN Pyrrolidine, 1-[[2-chloro-6-(ethylsulfonyl)-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)

RN 502149-73-7 CAPLUS

CN Piperidine, 1-[[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)

RN 502149-74-8 CAPLUS

CN Piperidine, 1-[[2,6-dibromo-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)

RN 502149-75-9 CAPLUS

CN Piperidine, 1-[[2-chloro-6-(ethylsulfonyl)-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]acetyl]- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2002:888717 CAPLUS

DOCUMENT NUMBER:

137:370089

TITLE: INVENTOR(S):

Preparation of benzoylcyclohexenones as herbicides Schwarz, Hans-Georg; Mueller, Klaus-Helmut; Hermann, Stefan; Hoischen, Dorothee; Kather, Kristian; Lehr, Stefan; Schallner, Otto; Drewes, Mark Wilhelm; Dahmen,

Peter; Feucht, Dieter; Pontzen, Rolf

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany

SOURCE:

PCT Int. Appl., 141 pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	PATENT NO.				KI	ND :	DATE		APPLICATION NO. DATE											
	WO	2002	0925	74	A1 20021121				WO 2002-EP4851 20020503											
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,		
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,		
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JΡ,	KE,	KG,	KΡ,	KR,	ΚZ,	LC,	LK,	LR,		
			LS,	LT,	LU,	LV,	ΜA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	ΝZ,	OM,	PH,		
			PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	TJ,	TM,	TN,	TR,	TT,	TZ,		
			UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,		
			ТJ,	TM																
		RW:	GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	ΤZ,	ŪĠ,	ZM,	ZW,	ΑT,	BE,	CH,		
			CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	SE,	TR,		
			BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
	DE 10138576					A1 20021121				DE 2001-10138576 20010806										
	EP 1392660				A1 20040303					EP 2002-730231 20020503										
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	ΙΤ,	LI,	LU,	NL,	SE,	MC,	PT,		
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR								
PRIOR	TI	APP	LN.	INFO	. :				I	DE 20	001-1	0123	8887	A :	20010	516				
									I	DE 20	001-1	10138	3576	A :	20010	806				

WO 2002-EP4851 W 20020503

OTHER SOURCE(S):

MARPAT 137:370089

$$R^{1}$$
 R^{2}
 R^{3}
 R^{4}
 R^{5}
 R^{5}

AB Title compds. [I; Q = O, S; R1 = H, halo, (substituted) alkyl, alkylthio, aryl; R2 = H, halo, (substituted) alkyl; or R1R2 = O, alkylene; R3, R4 = H, NO2, cyano, CO2H, (thio)carbamoyl, halo, (substituted) alkyl, alkoxy, etc.; R5 = H, (substituted) alkyl, alkoxy, alkylthio, etc.; Y = OH, halo, (substituted) alkoxy, alkylthio, alkylsulfinyl, etc.; Z = H, amino, cyanoamino, nitroamino, hydroxyamino, hydrazino, (substituted) alkyl, alkylcarbonyl, alkoxy, alkoxycarbonyl, etc.], were prepared Thus, a mixture of 2,4-dichloro-3-[(3-methyl-2-oxo-1-imidazolidinyl)carbonylamino]benzoic acid (preparation given), cyclohexane-1,3-dione, dicyclohexylcarbodiimide (DCC), and MeCN was stirred for 18 at 20° followed by filtering to give 49% N-[2,6-dichloro-3-(2,6-dioxocyclohexyl)carbonylphenyl]-3-methyl-2-oxo-1-imidazolidinecarboxamide. Several I were said to show strong preand postemergent herbicidal activity and good crop tolerance.

IT 475555-75-0P 475555-77-2P 475555-78-3P 475555-86-3P 475555-87-4P 475555-88-5P

Ι

475555-94-3P 475555-96-5P 475556-02-6P

475555-94-5E 475555-90-5E 475550-02-0E

475556-03-7P 475556-08-2P 475556-09-3P

475556-10-6P 475556-11-7P 475556-17-3P 475556-26-4P 475556-28-6P 475556-29-7P

475556-31-1P 475556-32-2P 475556-34-4P

475556-35-5P 475556-36-6P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzoylcyclohexenones as herbicides)

RN 475555-75-0 CAPLUS CN 1-Imidazolidinecarbo

1-Imidazolidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]-3-ethyl-2-oxo- (9CI) (CA INDEX NAME)

RN 475555-77-2 CAPLUS

CN 1(2H)-Pyrimidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]tetrahydro-3-methyl-2-oxo- (9CI) (CA INDEX NAME)

RN 475555-78-3 CAPLUS

CN 4-Morpholinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475555-86-3 CAPLUS

CN 1-Pyrrolidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475555-87-4 CAPLUS

CN 1(2H)-Pyrimidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]-3-ethyltetrahydro-2-oxo- (9CI) (CA INDEX NAME)

RN 475555-88-5 CAPLUS

CN 1(2H)-Pyrimidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]tetrahydro-3-(1-methylethyl)-2-oxo-(9CI)(CA INDEX NAME)

RN 475555-94-3 CAPLUS

CN 1(2H)-Pyrimidinecarboxamide, 3-cyclohexyl-N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]tetrahydro-2-oxo- (9CI) (CA INDEX NAME)

09/ 943,037

RN 475555-96-5 CAPLUS

CN 1-Piperidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475556-02-6 CAPLUS

CN 2-Thiophenecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475556-03-7 CAPLUS

CN 3-Isoxazolecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]-5-methyl- (9CI) (CA INDEX NAME)

RN 475556-08-2 CAPLUS

CN 3-Isoxazolecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]-4,5-dihydro- (9CI) (CA INDEX NAME)

RN 475556-09-3 CAPLUS

CN 2-Furancarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475556-10-6 CAPLUS

CN Benzamide, 4-chloro-N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475556-11-7 CAPLUS

CN 2-Isoxazolidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475556-17-3 CAPLUS

CN 2H-1,2-Oxazine-2-carboxamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]tetrahydro- (9CI) (CA INDEX NAME)

RN 475556-26-4 CAPLUS

CN 1H-Tetrazole-1-acetamide, N-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]-4,5-dihydro-4-methyl-5-oxo- (9CI) (CA INDEX NAME)

RN 475556-28-6 CAPLUS

CN 2-Isoxazolidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-3,3-dimethyl-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475556-29-7 CAPLUS

CN 2H-1,2-Oxazine-2-carboxamide, N-[2,6-dichloro-3-[(2-hydroxy-3,3-dimethyl-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]tetrahydro- (9CI) (CA INDEX NAME)

RN 475556-31-1 CAPLUS

CN 2-Isoxazolidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-4-methyl-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475556-32-2 CAPLUS

CN 2H-1,2-Oxazine-2-carboxamide, N-[2,6-dichloro-3-[(2-hydroxy-4-methyl-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]tetrahydro- (9CI) (CA INDEX NAME)

RN 475556-34-4 CAPLUS

CN 3-Isoxazolecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-4,4-dimethyl-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]-4,5-dihydro- (9CI) (CA INDEX NAME)

RN 475556-35-5 CAPLUS

CN 2-Isoxazolidinecarboxamide, N-[2,6-dichloro-3-[(2-hydroxy-4,4-dimethyl-6-oxo-1-cyclohexen-1-yl)carbonyl]phenyl]- (9CI) (CA INDEX NAME)

RN 475556-36-6 CAPLUS

2H-1,2-Oxazine-2-carboxamide, N-[2,6-dichloro-3-[(2-hydroxy-4,4-dimethyl-6-CN oxo-1-cyclohexen-1-yl)carbonyl]phenyl]tetrahydro- (9CI) (CA INDEX NAME)

2 REFERENCE COUNT: THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:874399 CAPLUS

DOCUMENT NUMBER:

136:5744

TITLE:

Preparation method of cyclohexenones and use as

herbicides

INVENTOR(S):

Nakamura, Yuji; Palmer, Christopher John; Kikugawa,

Hiroshi; Sano, Makiko; Ono, Ken

PATENT ASSIGNEE(S):

Ishihara Sangyo Kaisha, Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE JP 2001335573 20011204 JP 2000-154970 20000525 Α2 PRIORITY APPLN. INFO.: JP 2000-154970 20000525 OTHER SOURCE(S): CASREACT 136:5744; MARPAT 136:5744

GI

AB Title compds. [I; X = alkylenyloxy, alkylenylthioxy; A = heterocyclyl; Q = halo, O(CH2)nR5; R1 = H, alkyl; R2 = H, alkyl; R3 = H, alkyl; R4 = H, alkyl] and salts are prepared as the active component of herbicides. Thus, the title compound II was prepared and in vivo tested.

IT 376418-18-7P

CN

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation method of cyclohexenones and use as herbicides)

RN 376418-18-7 CAPLUS

2-Cyclohexen-1-one, 3-chloro-2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]- (9CI) (CA INDEX NAME)

(methylsulfonyl)benzoyl]-3-(phenylthio)- (9CI) (CA INDEX NAME)

RN 376418-38-1 CAPLUS

CN Carbonothioic acid, O-[2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-oxo-1-cyclohexen-1-yl] S-methyl ester (9CI) (CA INDEX NAME)

RN 376418-48-3 CAPLUS

CN 2-Cyclohexen-1-one, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-[(4-methylphenyl)thio]- (9CI) (CA INDEX NAME)

RN 376418-56-3 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-oxo-1-cyclohexen-1-yl ester (9CI) (CA INDEX NAME)

RN 376418-64-3 CAPLUS

CN Benzoic acid, 2-methyl-, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-oxo-1-cyclohexen-1-yl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \stackrel{\text{Me}}{\bigcirc} \\ \stackrel{\text{O}}{\bigcirc} \\ \stackrel{\text{CH}_2}{\bigcirc} \\ \stackrel{\text{O}}{\bigcirc} \\ \stackrel{\text{Me}}{\bigcirc} \\ \stackrel{\text{O}}{\bigcirc} \\ \stackrel{\text{O}$$

RN 376418-72-3 CAPLUS

CN Benzoic acid, 4-methyl-, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-oxo-1-cyclohexen-1-yl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{Me} & \text{O} \\ & \text{O} & \text{CH}_2 - \text{O} & \text{O} \\ & \text{Me} & \text{O} & \text{O} - \text{C} \\ & \text{O} & \text{Me} \end{array}$$

RN 376418-80-3 CAPLUS

CN Carbonic acid, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-oxo-1-cyclohexen-1-yl methyl ester (9CI) (CAINDEX NAME)

RN 376418-87-0 CAPLUS
CN Carbonic acid, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4(methylsulfonyl)benzoyl]-3-oxo-1-cyclohexen-1-yl phenyl ester (9CI) (CA
INDEX NAME)

RN 376418-94-9 CAPLUS
CN Carbonothioic acid, O-[2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4(methylsulfonyl)benzoyl]-3-oxo-1-cyclohexen-1-yl] S-ethyl ester (9CI) (CA
INDEX NAME)

RN 376419-01-1 CAPLUS
CN Carbonothioic acid, O-[2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4(methylsulfonyl)benzoyl]-3-oxo-1-cyclohexen-1-yl] S-phenyl ester (9CI)
(CA INDEX NAME)

RN 376419-10-2 CAPLUS

CN 2-Cyclohexen-1-one, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-[(methylsulfonyl)oxy]- (9CI) (CA INDEX NAME)

RN 376419-17-9 CAPLUS

CN 2-Cyclohexen-1-one, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-[(phenylsulfonyl)oxy]- (9CI) (CA INDEX NAME)

RN 376419-23-7 CAPLUS

CN 2-Cyclohexen-1-one, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-[[(4-methylphenyl)sulfonyl]oxy]- (9CI) (CA INDEX NAME)

RN 376419-31-7 CAPLUS

CN 2-Cyclohexen-1-one, 2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]-3-(ethylthio)- (9CI) (CA INDEX NAME)

RN 376419-39-5 CAPLUS

CN 2-Cyclohexen-1-one, 3-(diethylamino)-2-[3-(1,3-dioxolan-2-ylmethoxy)-2-methyl-4-(methylsulfonyl)benzoyl]- (9CI) (CA INDEX NAME)

3 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER:

2001:523547 CAPLUS

DOCUMENT NUMBER:

135:92638

TITLE:

Preparation of 4-[3-[2-(1H-triazolin-1-

yl)alkoxy]benzoyl]-1H-pyrazoles as herbicides

INVENTOR(S):

Schallner, Otto; Lehr, Stefan; Schwarz, Hans-Georg; Mueller, Klaus-Helmut; Hoischen, Dorothee; Drewes, Mark Wilhelm; Dahmen, Peter; Feucht, Dieter; Pontzen,

Rolf; Yanagi, Akihiko; Narabu, Shinichi; Goto, Toshio

PATENT ASSIGNEE(S):

Bayer A.-G., Germany; Nihon Bayer Agrochem K.K.

SOURCE:

Ger. Offen., 54 pp.

CODEN: GWXXBX

DOCUMENT TYPE: LANGUAGE: Patent German FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

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PATENT NO.
                      KIND DATE
                                          APPLICATION NO. DATE
                            20010719
                                           DE 2000-10039723 20000814
    DE 10039723
                      Α1
                            20010726
                                           WO 2001-EP92
     WO 2001053275
                      A2
                                                            20010105
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
         W:
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                         BR 2001-7624
                                                            20010105
     BR 2001007624
                            20021112
                      Α
                                           EP 2001-903626
     EP 1324996
                            20030709
                                                            20010105
                       A2
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI, CY, TR
     JP 2004504266
                       T2
                            20040212
                                           JP 2001-553277
                                                            20010105
                                           US 2002-181327
     US 2003153465
                       Α1
                            20030814
                                                            20020715
                                        DE 2000-10001588 A1 20000117
PRIORITY APPLN. INFO.:
                                        DE 2000-10039723 A 20000814
                                        WO 2001-EP92 W 20010105
OTHER SOURCE(S):
                        MARPAT 135:92638
GI
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$$R^{2}$$
 $(R^{3})_{m}$
 R^{2}
 OXR^{4}

Title compds. [I; R1 = (substituted) dioxocycloalkyl, oxazolyl, pyrazolyl, alkylcarbonyl; R2 = H, NO2, cyano, CO2H, carbamoyl, thiocarbamoyl, halo, AB (substituted) alkyl, alkoxy, alkylthio, etc.; R3 = NO2, cyano, CO2H, carbamoyl, thiocarbamoyl, halo, (substituted) alkyl, alkoxy, alkylthio, alkylsulfinyl, etc.; R4 = (substituted) mono- or bicyclic heterocyclyl; X = alkylene; n = 0-2] were prepared as herbicides (no data). Thus, 3-[2-(3,4-dimethyl-1,2,4-1H-triazolin-5-on-1-yl)ethoxy]-2-methyl-4methylsulfonylbenzoyl chloride (analog preparation given) in CH2Cl2 was treated with 1-ethyl-5-hydroxypyrazole, Et3N, and 1 drop of DMF followed by stirring for 24 h at 20° to give 88% 4-[3-[2-(3,4-dimethyl-1,2,4-1Htriazolin-5-on-1-yl)ethoxy]-2-methyl-4-methylsulfonylbenzoyl]-1-ethyl-5hydroxy-1H-pyrazole. I were said to show very strong pre- and postemergent herbicidal activity and good crop tolerance. IT 349478-83-7P 349478-85-9P 349478-87-1P 349478-89-3P 349478-90-6P 349478-92-8P 349479-01-2P 349479-04-5P 349479-06-7P 349479-07-8P 349479-09-0P 349479-11-4P 349479-13-6P 349479-15-8P 349479-17-0P 349479-19-2P 349479-20-5P 349479-24-9P 349479-26-1P 349479-28-3P 349479-29-4P 349479-31-8P RL: AGR (Agricultural use); BAC (Biological activity or effector, except

RN 349478-83-7 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]ethyl]-2,4-dihydro-4,5-dimethyl- (9CI) (CA INDEX NAME)

RN 349478-85-9 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[6-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-2-methylphenoxy]ethyl]-2,4-dihydro-4,5-dimethyl- (9CI) (CA INDEX NAME)

RN 349478-87-1 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-6-(methylthio)phenoxy]ethyl]-2,4-dihydro-4,5-dimethyl- (9CI) (CA INDEX NAME)

RN 349478-89-3 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2,4-dihydro-2-[2-[3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-2-methyl-6-(methylthio)phenoxy]ethyl]-4,5-dimethyl- (9CI) (CA INDEX NAME)

RN 349478-90-6 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-6-(methylsulfonyl)phenoxy]ethyl]-2,4-dihydro-4,5-dimethyl-(9CI) (CA INDEX NAME)

RN 349478-92-8 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]methyl]-2,4-dihydro-4-methyl-5-(methylthio)- (9CI) (CA INDEX NAME)

RN 349479-01-2 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]ethyl]-2,4-dihydro-5-(methoxymethyl)-4-methyl- (9CI) (CA INDEX NAME)

RN 349479-04-5 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-

cyclohexen-1-yl)carbonyl]phenoxy]ethyl]-2,4-dihydro-4-methyl-5(methylthio)- (9CI) (CA INDEX NAME)

RN 349479-06-7 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]ethyl]-4-ethyl-2,4-dihydro-5-methoxy-(9CI) (CA INDEX NAME)

RN 349479-07-8 CAPLUS

CN 2-Pyrrolidinone, 5-[[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-6-(methylthio)phenoxy]methyl]-, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 349479-09-0 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[6-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-2-methylphenoxy]ethyl]-4-ethyl-2,4-dihydro-5-methoxy- (9CI) (CA INDEX NAME)

RN 349479-11-4 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[6-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-

yl)carbonyl]-2-methylphenoxy]ethyl]-2,4-dihydro-4-methyl-5-(methylthio)-(9CI) (CA INDEX NAME)

Mes N
$$CH_2-CH_2-O$$
 $C1$ $C1$ O CH

RN 349479-13-6 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[6-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-2-methylphenoxy]ethyl]-2,4-dihydro-5-(methoxymethyl)-4-methyl-(9CI) (CA INDEX NAME)

RN 349479-15-8 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-6-(methylthio)phenoxy]ethyl]-2,4-dihydro-4-methyl-5-(methylthio)- (9CI) (CA INDEX NAME)

RN 349479-17-0 CAPLUS

CN 2-Pyrrolidinone, 5-[[6-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-2-methylphenoxy]methyl]-, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 349479-19-2 CAPLUS

CN 2-Pyrrolidinone, 5-[[6-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-

09/ 943,037

yl)carbonyl]-2-methylphenoxy]methyl]-1-methyl-, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 349479-20-5 CAPLUS

CN 2-Pyrrolidinone, 5-[[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]methyl]-1-methyl-, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 349479-24-9 CAPLUS

CN 3H-1,2,4-Triazol-3-one, 2-[2-[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-6-(methylthio)phenoxy]ethyl]-2,4-dihydro-5-(methoxymethyl)-4-methyl- (9CI) (CA INDEX NAME)

RN 349479-26-1 CAPLUS

CN 2-Pyrrolidinone, 5-[[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-6-(methylthio)phenoxy]methyl]-1-methyl-, (5S)- (9CI) (CFINDEX NAME)

Absolute stereochemistry.

RN 349479-28-3 CAPLUS

CN 5H-Tetrazol-5-one, 1-[2-[2,6-dibromo-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-

yl)carbonyl]phenoxy]ethyl]-1,4-dihydro-4-methyl- (9CI) (CA INDEX NAME)

RN 349479-29-4 CAPLUS

CN 5H-Tetrazol-5-one, 1-[2-[2,6-dichloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]phenoxy]ethyl]-1,4-dihydro-4-methyl- (9CI) (CA INDEX NAME)

RN 349479-31-8 CAPLUS

CN 5H-Tetrazol-5-one, 1-[2-[2-chloro-3-[(2-hydroxy-6-oxo-1-cyclohexen-1-yl)carbonyl]-6-(methylsulfonyl)phenoxy]ethyl]-1,4-dihydro-4-methyl- (9CI) (CA INDEX NAME)

L3 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:338507 CAPLUS

DOCUMENT NUMBER: 134:340502

TITLE: Preparation of benzoylcyclohexanediones and

benzoylpyrazoles as herbicides and plant growth

regulators.

INVENTOR(S):
Seitz, Thomas; Willms, Lothar; Auler, Thomas;

Bieringer, Hermann; Thuerwaechter, Felix

PATENT ASSIGNEE(S): Aventis CropScience GmbH, Germany

SOURCE: PCT Int. Appl., 113 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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WO 2000-EP10460 20001024
     WO 2001032636
                       A1
                            20010510
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             CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR,
             KZ, LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, NO, NZ, PL, RO,
             RU, SG, SI, SK, TJ, TM, TR, TT, UA, UZ, VN, YU, ZA, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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     EP 1235816
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             IE, SI, LT, LV, FI, RO, MK, CY, AL
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                                            US 2000-705001
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                                                             20001102
                                         DE 1999-19953136 A
PRIORITY APPLN. INFO.:
                                                             19991104
                                         WO 2000-EP10460 W 20001024
OTHER SOURCE(S):
                         MARPAT 134:340502
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Q XHetR³ (R⁴) n
$$\mathbb{R}^2$$
 I

$$Q^{1} = ()_{p}$$

$$(R^{6})_{q}$$

$$Q^{2} = N$$

$$R^{7}$$

$$Q^{2} = N$$

$$R^{8}$$

AB Title compds. [I; Q = Q1, Q2; X = OR3a, OCOR3a, OCONHR3a, OSO2R3a, alkyl, alkenyl, alkynyl, Ph, etc.; R1, R2 = H, SH, NO2, halo, cyano, alkyl, alkoxyalkyl, haloalkyl, alkenyl, alkynyl, etc.; R3 = H, OH, halo, SH, amino, cyano, NO2, CHO, alkoxycarbonyl, alkylcarbonyl, etc.; R3a = H, (substituted) alkyl, alkenyl, alkynyl, Ph, phenylalkyl; R4 = [C(R11)2]mAr[C(R11)2]mR12; A = O, S; R5 = OR16, alkylthio, haloalkylthio,alkenylthio, haloalkenylthio, alkynylthio, haloalkynylthio, alkylsulfinyl, haloalkylsulfinyl, etc.; R6 = H, tetrahydropyranyl, tetrahydrothiopyranyl, (substituted) alkyl, cycloalkyl, alkoxy, alkylcarbonyl, alkoxyalkyl, etc.; R7 = H, alkyl, haloalkyl; R8 = alkyl, haloalkyl, (substituted) Ph; R9 = H, alkyl, haloalkyl, alkylcarbonyl, alkoxycarbonyl, haloalkylcarbonyl, alkoxycarbonyl, alkylsulfonyl, haloalkylsulfonyl, (substituted) PhCO, PhCOCH2, PhOCO2, PhSO2, etc.; R11 = H, alkyl, halo; R12 = (substituted) cycloalkyl, cycloalkenyl, aryl, heterocyclyl, heteroaryl, etc.; Y = O, S, NH, CHR6, C(R6)2, alkylimino; Z = bond, O, S, SO, SO2, NH, alkylimino, CHR7, C(R7)2; m, n = 0-2; p = 1, 2; q = 0-4; r = 0, 1], were prepared 2-chloro-3-(3-phenylisoxazol-5-yl)methoxy-4-methylsulfonylbenzoic acid (preparation given), cyclohexane-1,3-dione, N'-(3-dimethylaminopropyl)-Nethylcarbodiimide hydrochloride, and dimethylaminopyridine were stirred in CH2Cl2 to give 60% enol ether, which was stirred with acetone cyanohydrin,

IT

RN

Et3N, and KCN in MeCN to give 55% 2-[2-chloro-3-(3-phenylisoxazol-5-yl)methoxy-4-methylsulfonylbenzoyl]cyclohexan-1,3-dione. Several I at ≤1 kg/ha postemergent gave ≥80% control of Sinapis alba and Stellaria media.

338461-72-6P 338461-73-7P 338461-74-8P
338461-75-9P 338461-76-0P 338461-77-1P
338461-80-6P 338461-81-7P 338461-82-8P
338461-83-9P 338461-84-0P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of benzoylcyclohexanediones and benzoylpyrazoles as herbicides and plant growth regulators)
338461-72-6 CAPLUS

CN 2-Cyclohexen-1-one, 2-[2-chloro-3-[(3-cyclopropyl-4,5-dihydro-5-isoxazolyl)methoxy]-4-(methylsulfonyl)benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 338461-73-7 CAPLUS
CN 2-Cyclohexen-1-one, 2-[2-chloro-3-[(4,5-dihydro-3-phenyl-5-isoxazolyl)methoxy]-4-(methylsulfonyl)benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} Ph & & \\ & & \\ & & \\ O & & \\ O & & \\ & & \\ O & & \\$$

RN 338461-74-8 CAPLUS
CN 2-Cyclohexen-1-one, 2-[2-chloro-3-[[4,5-dihydro-3-[2-(trifluoromethyl)phenyl]-5-isoxazolyl]methoxy]-4-(methylsulfonyl)benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 338461-75-9 CAPLUS
CN 2-Cyclohexen-1-one, 2-[2-chloro-3-[[4,5-dihydro-3-[4-(trifluoromethyl)phenyl]-5-isoxazolyl]methoxy]-4-(methylsulfonyl)benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

$$F_3C$$
 CH_2
 CH_2

RN 338461-76-0 CAPLUS
CN 2-Cyclohexen-1-one, 2-[2-chloro-4-(methylsulfonyl)-3-[(3-phenyl-5-isoxazolyl)methoxy]benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 338461-77-1 CAPLUS
CN 2-Cyclohexen-1-one, 2-[2-chloro-4-(methylsulfonyl)-3-[[3-[3-(trifluoromethyl)phenyl]-5-isoxazolyl]methoxy]benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 338461-80-6 CAPLUS
CN 2-Cyclohexen-1-one, 3-(benzoyloxy)-2-[2-chloro-3-[(3-cyclohexyl-4,5-dihydro-5-isoxazolyl)methoxy]-4-(methylsulfonyl)benzoyl]- (9CI) (CA INDEX NAME)

RN 338461-81-7 CAPLUS CN 2-Cyclohexen-1-one, 2-[2,4-dichloro-3-[(4,5-dihydro-3-phenyl-5-isoxazolyl)methoxy]benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 338461-82-8 CAPLUS CN 2-Cyclohexen-1-one, 2-[2,4-dichloro-3-[[4,5-dihydro-3-(2-pyridinyl)-5-isoxazolyl]methoxy]benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 338461-83-9 CAPLUS
CN 2-Cyclohexen-1-one, 2-[2,4-dibromo-3-[(4,5-dihydro-3-phenyl-5-isoxazolyl)methoxy]benzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)

RN 338461-84-0 CAPLUS
CN 2-Cyclohexen-1-one, 2-[3-[(3-cyclopropyl-4,5-dihydro-5-isoxazolyl)methoxy]4-(methylsulfonyl)-2-nitrobenzoyl]-3-hydroxy- (9CI) (CA INDEX NAME)